

Chapter 6

Solve the inequality. Graph your solution.

- 6.1**
- | | | | |
|------------------------------|---------------------------------------|--------------------------------------|---|
| 1. $y - 2 > 3$ | 2. $5 + x \leq 2$ | 3. $4 \geq x - 3$ | 4. $m + 3 < 2$ |
| 5. $2 + n \leq 4\frac{1}{2}$ | 6. $2\frac{3}{4} + n < -3\frac{5}{8}$ | 7. $1\frac{7}{8} > 6\frac{3}{4} + z$ | 8. $3\frac{2}{5} \geq 1\frac{1}{3} + k$ |
| 9. $-8.5 \leq t - 10$ | 10. $r + 4 < -0.7$ | 11. $-6.9 > -1.4 + y$ | 12. $1.48 - m \geq -3.13$ |
- 6.2**
- | | | | |
|---------------------|---------------------------|---------------------------|------------------------|
| 13. $3p \leq 27$ | 14. $-13t > 26$ | 15. $\frac{x}{3} \geq 2$ | 16. $\frac{y}{-2} < 5$ |
| 17. $-6m \geq -9$ | 18. $-3 \geq \frac{n}{2}$ | 19. $0.3z \leq 2.4$ | 20. $25 > -2.5s$ |
| 21. $4.8z \leq 3.2$ | 22. $0.09d < -1.8$ | 23. $\frac{y}{0.3} > -15$ | 24. $-1.8t < 9$ |

6.3 Solve the inequality, if possible. Graph your solution.

- | | | |
|-----------------------------------|----------------------------------|---|
| 25. $3x + 5 \geq 20$ | 26. $6z - 5 < 13$ | 27. $8(t + 4) > -8$ |
| 28. $7 - 8n \leq 4n - 17$ | 29. $8(m + 2) < 4(5 + 2m)$ | 30. $6d - 4 - 3d \geq 14$ |
| 31. $\frac{2}{3}y + 28 > 20 + 2y$ | 32. $6(-5 + 3p) \geq 3(6p - 10)$ | 33. $\frac{5}{6}(12z - 24) > \frac{2}{5}(25z - 25)$ |

6.4 Solve the inequality. Graph your solution.

- | | | |
|---|--|--|
| 34. $2 \leq y - 4 < 7$ | 35. $-27 < 9x < 27$ | 36. $2 < 6z - 10 < 20$ |
| 37. $15 < \frac{5}{9}(18a - 9) \leq 30$ | 38. $2v > 12$ or $v + 2 < 6$ | 39. $3r + 7 < -5$ or $32 \leq 7r + 46$ |
| 40. $-4m < 8$ or $2m - 2 < -12$ | 41. $9t - 20 \geq 4t$ or $4 < \frac{1}{-2}t$ | 42. $-n - 1 > 1$ or $2n + 8 > n + 8$ |

6.5 Solve the equation, if possible.

- | | | | |
|----------------------|----------------------|------------------------|---|
| 43. $ x = 8$ | 44. $ y = -10$ | 45. $ m + 6 = 5$ | 46. $ 4z - 2 = 14$ |
| 47. $ t - 7 = 21$ | 48. $6 z - 4 = 36$ | 49. $4 6s + 11 = -52$ | 50. $ r + 3 - 16 = -4$ |
| 51. $ 5r + 10 = 15$ | 52. $2 3s + 4 = 14$ | 53. $-4 7v + 2 = 32$ | 54. $12\left \frac{5}{6}w - 4\right - 4 = 8$ |

6.6 Solve the inequality. Graph your solution.

- | | | | |
|------------------------|---------------------------|-----------------------------|---|
| 55. $ x \leq 3$ | 56. $ y \geq 5$ | 57. $ s > 1.2$ | 58. $ q < \frac{2}{5}$ |
| 59. $ x + 2 > 6$ | 60. $ y + 3 \leq 5$ | 61. $ 8 - m < 3$ | 62. $ 4n - 1 \geq 7$ |
| 63. $3 p - 3 \leq 12$ | 64. $ 3q + 2 - 3 \geq 8$ | 65. $2 5a - 1 + 3 \leq 11$ | 66. $4\left \frac{2}{3}c + 2\right < 64$ |

6.7 Graph the inequality.

- | | | | |
|------------------------|----------------------|------------------------|----------------------------|
| 67. $y \geq x + 5$ | 68. $y < x - 1$ | 69. $4x + y > 3$ | 70. $x \leq -5$ |
| 71. $3(x - 8) \leq 6y$ | 72. $2x - y \geq -2$ | 73. $y > 8$ | 74. $2(x - 1) \geq 1 - y$ |
| 75. $x - 8 \leq y + 2$ | 76. $2x \geq -2y$ | 77. $3(y - 8) > x - 9$ | 78. $2(-x - 1) \geq 4 + y$ |